Mason Deja

Mod 10

Fire blight disease

1. See Table 1

Table 1. Two-way frequency table for trees by treatment (A=no action (control), B=removal of the affected branches, C=sprayed foliage with an antibiotic and removal of the affected branches) and outcome (1=tree died in the same year, 2=tree died 2-4 years after, 3=tree died more than 4 years after the disease was noticed).

Treat

Out 1 2 3

A 5 2 0

B 3 3 2

C 2 4 3

1. See table 2

Table 2-row percentage table for the data

Treat

Out 1 2 3 Sum

A 20.833333 8.333333 0.000000 29.166667

B 12.500000 12.500000 8.333333 33.333333

C 8.333333 16.666667 12.500000 37.500000

Sum 41.666667 37.500000 20.833333 100.000000

1. See table 3

Table 3-column percentage table for the data

Treat

Out 1 2 3 Sum

A 71.42857 28.57143 0.00000 100.00000

B 37.50000 37.50000 25.00000 100.00000

C 22.22222 44.44444 33.33333 100.00000

1. See table 4

Table 4-table percentage table for the data

|  |
| --- |
| Treat  Out 1 2 3  A 50.00000 22.22222 0.00000  B 30.00000 33.33333 40.00000  C 20.00000 44.44444 60.00000  Sum 100.00000 100.00000 100.00000 |
|  |
| |  | | --- | |  | |

1. The percentage of trees in treatment A that died within the first year the disease was noticed is 20.83%
2. The percent of all trees that were in treatment A and died within the first year of the disease being noted is 29.16%
3. The percentage of the trees in the control treatment died more than four years later after the disease was noticed is 0%
4. the percentage of the trees that died 2-4 years after the disease was noticed were in the control treatment is 8.33%
5. The percentage of all trees died within the first year after the disease was noticed is 41.66%
6. It is shown that the control in the experiment over all had the least amount of tree deaths overall but had the most deaths in the same year but no deaths after 4 years. C had the most deaths overall.

R code

library(NCStats)

setwd("~/R stuff")

df<- read.csv

str(df)

(freq.table <-xtabs(~Out+ Treat,data=df))

percTable(freq.table)

percTable(freq.table, margin = 1)

percTable(freq.table, margin = 2)

I have neither given nor received unauthorized aid in completing this work, nor have I presented someone else's work as my own.